

Tobacco-grade fertilizers are available without P and can be custom-blended to supply the N and K₂O recommended on the soil test report. Select a mixed fertilizer grade that will supply nitrogen at a rate of 40 lb/acre, all the recommended P₂O₅ and up to 120 lb/acre of K₂O at planting or within 10 days after setting. You can apply additional nitrogen and/or potash later as a sidedressing.

Phosphate (P₂O₅) and Potash (K₂O) for Burley Tobacco

Soils in the burley tobacco region have high levels of phosphorus and potassium. These nutrients build-up when they are applied on a continual basis at rates that exceed soil test recommendations.

In 35 to 40% of the areas where burley is grown, a P₂O₅ or K₂O rate of 40 to 50 lb/acre is sufficient. This low rate reduces fertilizer costs as well as the potential for salt injury.

P₂O₅ and K₂O recommendations are specific for the soil tested. Select a mixed fertilizer that best supplies the recommended rates of P₂O₅ and K₂O. If an appropriate mixed grade is unavailable, use single-grade materials. Ammonium nitrate (33.5% N), triple superphosphate (46% P₂O₅) and sulfate of potash (50% K₂O) are acceptable.

Tissue Testing to Ensure Quality & Yield

Tissue testing should be an integral part of tobacco production. During the growing season, it can help identify nutrient deficiencies. At the end of the season, it can be used successfully to determine ripeness and facilitate decisions on timing of flue-cured tobacco harvest.

**Additional information
can be obtained from an
NCDA&CS regional agronomist
or the local
Cooperative Extension office.**



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NOTE 1: Fertilization of Tobacco

Historically, tobacco has been a heavily fertilized crop. Fertilizer recommendations on the soil test report produce high-yielding, quality tobacco assuming other limitations are negligible. The plant's ability to use nutrients depends on adequate lime having been applied, the method and timing of fertilization, variety selection and nematode management practices. Low yields and poor quality are seldom related to soil fertility alone.

Lime

The rate of lime recommended on the soil test report

- raises soil pH and maintains it between 5.8 and 6.2;
- supplies the essential nutrients calcium and magnesium;
- neutralizes aluminum, which becomes toxic to plant roots when the soil pH is too low; and
- enhances uptake and use of phosphorus.

Magnesium (Mg) & Sulfur (S)

Magnesium deficiency is typically seen on light-colored, sandy soils, often in seasons of high rainfall. Due to this fact, this condition is also known as "sand drown." Symptoms are seen as yellowing between veins on the lower leaves (interveinal chlorosis) that may progress midway up the stalk. The yellowing often begins at the tip or along leaf margins, progressing to the leaf's base and center. Tissue may appear white in extreme cases.

If there is a \$ symbol in the Mg column on the soil test report, then magnesium levels are